ELWHA HEIGHTS WATER ASSOCIATION PIPELINE

EHWA JARPA Data
Vicinity Map
Location Map
West portion of EHWA pipeline
East portion of EHWA pipeline
EHWA final pipeline alinement
Plan and Profile Figures:

1. Sta. 1+00 To Sta. 13+00 w/ typical pipe trench cross-section
2. Sta. 13+00 to Sta. 24+75
3. Sta. 24+75 to Sta. 36+75
4. Sta. 36+75 to Sta. 48+75
5. Sta. 48+75 to Sta. 59+50
6. Sta. 59+50 to Sta. 67+60

Elwha Heights Water Association (EHWA) Pipeline
Text for inclusion in the Elwha River Restoration Project JARPA
All bold text is copied from the JARPA application. All responses are in normal text.

SECTION 2

4. NAME, ADDRESS, AND PHONE NUMBER OF PROPERTY OWNER(S), IF OTHER THAN APPLICANT.
See Ownership List.

5. LOCATION (STREET ADDRESS, INCLUDING CITY, COUNTY AND ZIP CODE, WHERE PROPOSED ACTIVITY EXISTS OR WILL OCCUR)
The pipeline will replace the existing Dry Creek Water Association (DCWA) pipeline on the eastside of Rife Road beginning at the intersection of Rife Road and Edgewood Road northward to Walker Ranch Road, then west to the end of Walker Ranch Road all within Dry Creek Water Association right-of way. The pipeline will continue to proceed west cross-country to Edgewood Road then northerly along Edgewood Road to the four houses in the Elwha Heights subdivision.

LOCAL GOVERNMENT WITH JURISDICTION (CITY OR COUNTY)
Dry Creek Water Association, Washington Department of Health, Clallam County

WATERBODY
N/A

TRIBUTARY OF
N/A

WRIA#
N/A

LEGAL DESCRIPTION
SW1/4 and SE1/4, Section 2 and NE1/4, Section 11

TOWNSHIP
30N

RANGE
7W

SHORELINE DESIGNATION
N/A

LATITUDE&LONGITUDE IF KNOWN:

TAX PARCEL NUMBER
See Ownership List

ZONING DESIGNATION

DNR STREAM TYPE, IF KNOWN

6. DESCRIBE THE CURRENT USE OF THE PROPERTY, AND THE STRUCTURES EXISTING ON THE PROPERTY. IF ANY PORTION OF THE PROPOSED ACTIVITY IS ALREADY COMPLETED ON THIS PROPERTY, INDICATE THE MONTH AND YEAR OF COMPLETION.
The pipeline route is currently a DCWA right-of way and undeveloped land.

IS THIS PROPERTY ON AGRICULTURAL LAND?
No

ARE YOU A USDA PROGRAM PARTICIPANT?
No

7.a. DESCRIBE THE PROPOSED CONSTRUCTION AND/OR FILL WORK FOR THE PROJECT THAT YOU WANT TO BUILD THAT NEEDS AQUATIC PERMITS: COMPLETE PLANS AND SPECIFICATIONS SHOULD BE PROVIDED FOR ALL WORK WATERWARD OF THE ORDINARY HIGH WATER MARK OR LINE, INCLUDING TYPES OF EQUIPMENT TO BE USED. IF APPLYING FOR A SHORELINE PERMIT, DESCRIBE ALL WORK WITHIN AND BEYOND 200 FEET OF THE ORDINARY HIGH WATER MARK. ATTACH A SEPARATE SHEET IF ADDITIONAL SPACE IS NEEDED.

The proposed construction will consist of installation of 6760-feet of 6-inch or 8-inch waterline and associated plumbing fittings and fire hydrants using standard trenching and fill methods.

7.b. DESCRIBE THE PURPOSE OF THE PROPOSED WORK AND WHY YOU WANT OR NEED TO PERFORM IT AT THE SITE. PLEASE EXPLAIN ANY SPECIFIC NEEDS THAT HAVE INFLUENCED THE DESIGN.
The proposed pipeline will provide potable water to the EHWA from the DCWA as replacement for the existing city water supply. EHWA currently receives potable from the city pipeline that runs between the Ranney Well, where the water is treated, and the city service area. After construction of the Elwha Water Treatment and the Port Angeles Treatment Plant (PAWTP), potable water will only be provided from the PAWTP. A new waterline from the PAWTP to EHWA would be approximately 14,500-feet long.

7.c. DESCRIBE THE POTENTIAL IMPACTS TO THE CHARACTERISTIC USES OF THE WATER BODY. THESE USES MAY INCLUDE FISH OR AQUATIC LIFE, WATER QUALITY, WATER SUPPLY, RECREATION AND AESTHETICS. IDENTIFY PROPOSED ACTIONS TO AVOID, MINIMIZE, OR MITIGATE DETRIMENTAL IMPACTS, AND PROVIDE PROPER PROTECTION OF FISH AND AQUATIC LIFE. ATTACH A SEPARATE SHEET IF ADDITIONAL SPACE IS NEEDED.

Short-term impacts due to construction will cause the loss of 1,000 sq. ft. of isolated wetland habitat at EH-1 and EH-6.

Long-term impacts are the likely loss of wetland characteristics of EH-1 and EH-6.

Mitigation measures during construction include:
- Minimizing the impacts to existing, healthy vegetation to the extent possible.
- Use of proactive and reactive BMP's at the site.
- Mulches and erosion control fabrics will be used in highly erosive areas.
- Final pipeline alinement based on Jurisdictional Waters Report (URS, 04/10/2006).

Mitigation Measured for Long-Term Impacts Include:
- Revegetation will be carefully matched to the soil and sun exposure for which they are best suited.
- Use of local nursery stocks is preferred.

8. WILL THE PROJECT BE CONSTRUCTED IN STAGES?
Yes, the pipeline will be constructed separately from other elements of the restoration project.

PROPOSED STARTING DATE:
The exact starting date will be determined based on issuance of the necessary permits, negotiations with the successful Contractor, the Contractors schedule as to when they would be completing this portion of the work, and prior to dam removal.

ESTIMATED DURATION OF ACTIVITY:
Overall construction is anticipated to take approximately 4 months.

9. CHECK IF ANY STRUCTURES WILL BE PLACED:

No. WATERWARD OF THE ORDINARY HIGH WATER MARK OR LINE FOR FRESH OR TIDAL WATERS.

No. WATERWARD OF MEAN HIGH WATER LINE IN TIDAL WATERS

10. WILL FILL MATERIAL (ROCK, FILL, BULKHEAD, OR OTHER MATERIAL) BE PLACED:

No. WATERWARD OF THE ORDINARY HIGH WATER MARK OR LINE FOR FRESH OR TIDAL WATERS.

No. WATERWARD OF MEAN HIGH WATER LINE IN TIDAL WATERS.

11. WILL MATERIAL BE PLACED IN WETLANDS?
Yes

IF YES,

A. IMPACTED AREA IN ACRES:
Approximately 1,000 sq. ft.

B. HAS A DELINEATION BEEN COMPLETED? IF YES, PLEASE SUBMIT WITH APPLICATION.
Yes

C. HAS A WETLAND REPORT BEEN PREPARED? IF YES, PLEASE SUBMIT WITH APPLICATION.
Yes

D. TYPE AND COMPOSITION OF FILL MATERIAL (E.G. SAND, ETC):
Graded fill and topsoil.

E. MATERIAL SOURCE:
Commercial source.

F. LIST ALL SOIL SERIES (TYPE OF SOIL) LOCATED AT THE PROJECT SITE, & INDICATE IF THEY ARE ON THE COUNTY'S LIST OF HYDRIC SOILS. SOILS INFORMATION CAN BE OBTAINED FROM THE NATURAL RESOURCES CONSERVATION SERVICE (NRCS):

12. WILL PROPOSED ACTIVITY CAUSE FLOODING OR DRAINING OF WETLANDS?
Yes, the graded fill material is designed to provide drainage to protect the pipe from corrosion and frost heaving.

13. WILL EXCAVATION OR DREDGING BE REQUIRED IN WATER OR WETLANDS?
Yes, EH-1 and EH-6 are in the existing DCWA pipeline right-of-way.

SECTION B

17. TOTAL COST OF PROJECT. THIS MEANS THE FAIR MARKET VALUE OF THIS PROJECT, INCLUDING LABOR, MATERIALS, MACHINE RENTALS, ETC.
Estimated $400,000.

18. LOCAL GOVERNMENT WITH JURISDICTION:
Dry Creek Water Association, Washington Department of Health, Clallam County.

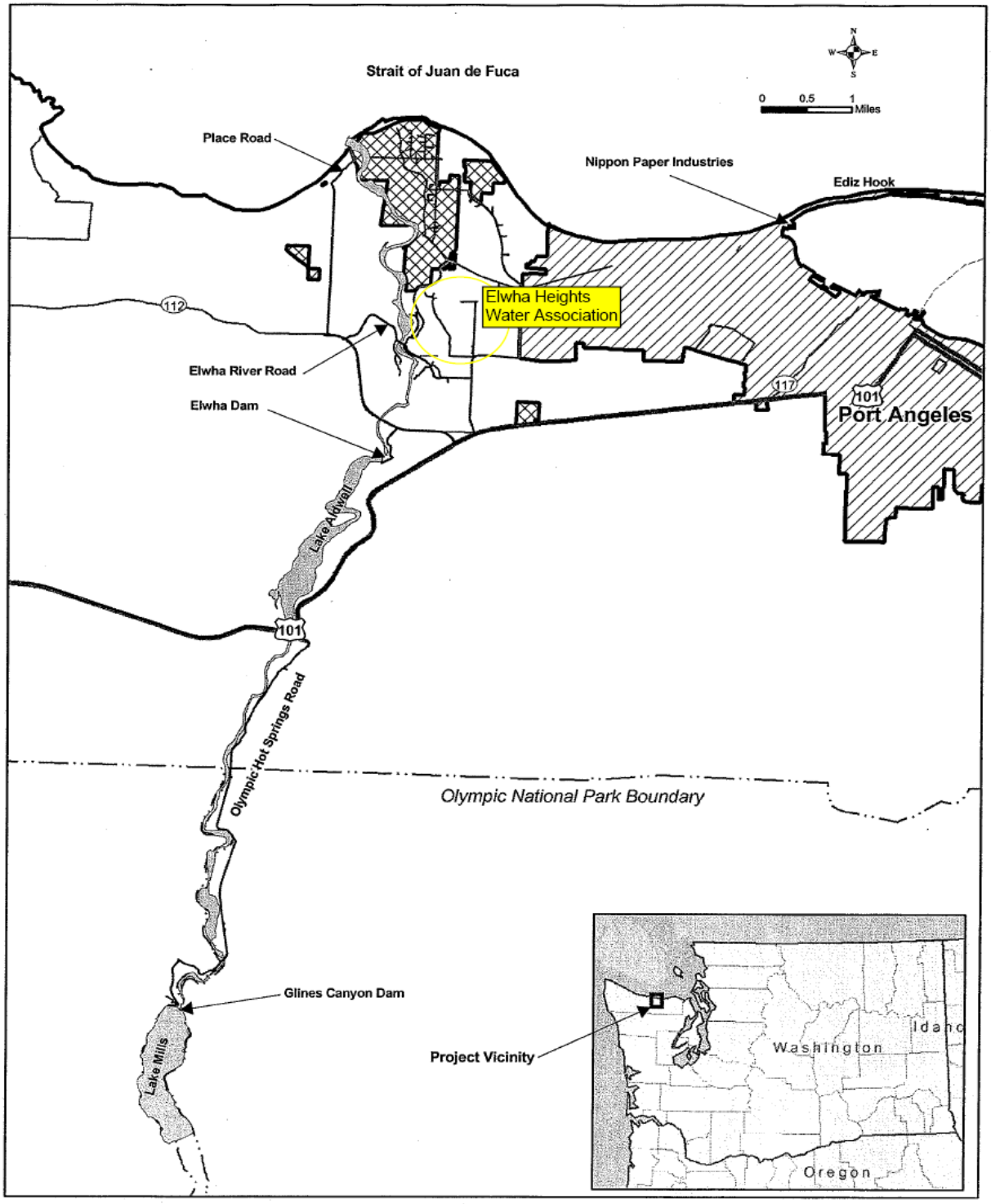


Figure 1: Vicinity Map

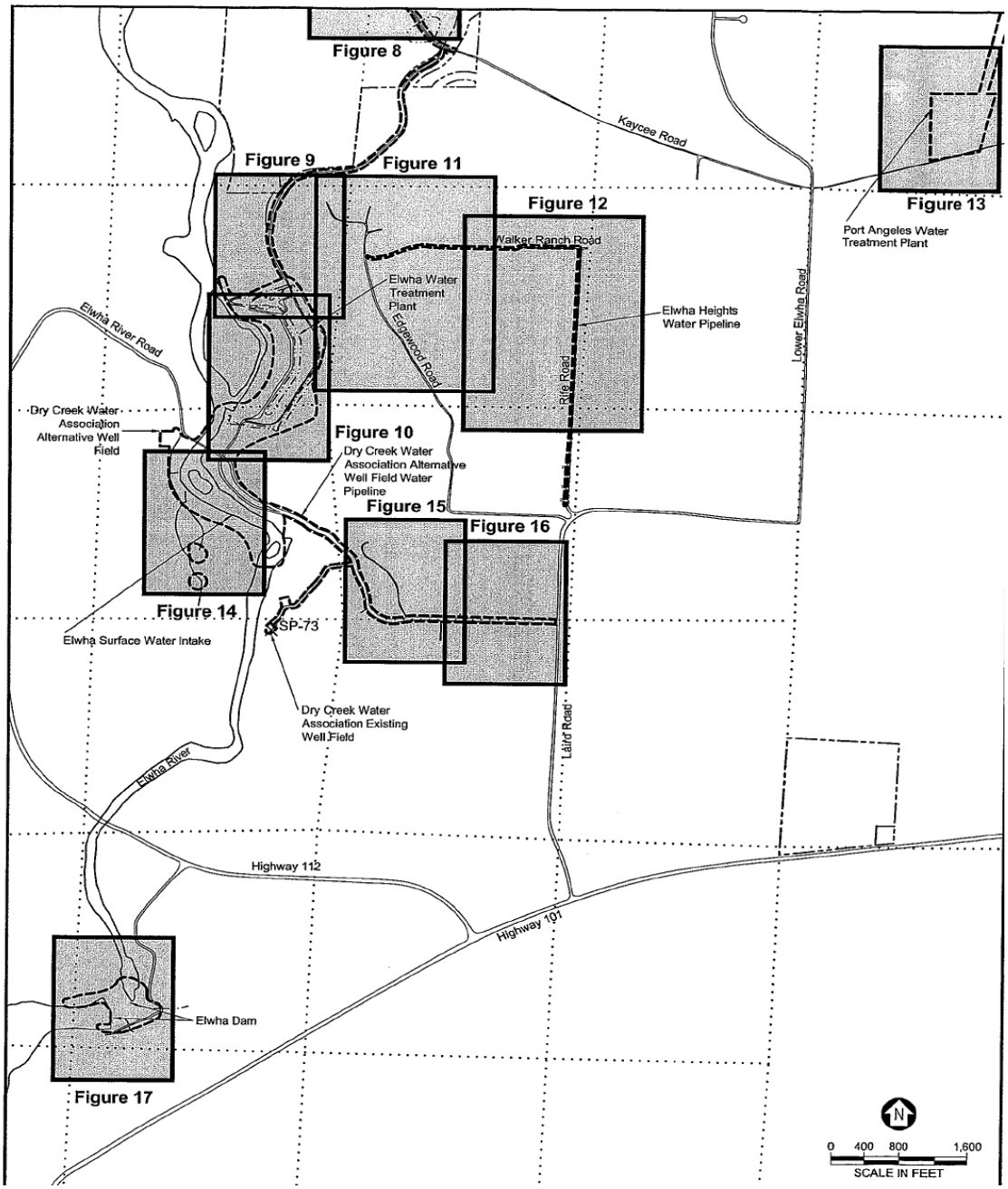
Proposed Project: Construction Projects Associated with Elwha River Restoration
Purpose: Restore Elwha River Ecosystem and Native Anadromous Fisheries
Location: Clallam County, Washington
Applicant: Bureau of Reclamation
Sheet: 1 of 20

URS

FILENAME: T:\Misc-Jobs\Elwha\ElwhaTribe\Maps\RP\Figure 1.mxd
EDIT DATE: 08/31/05 AT: 14:11

Legend

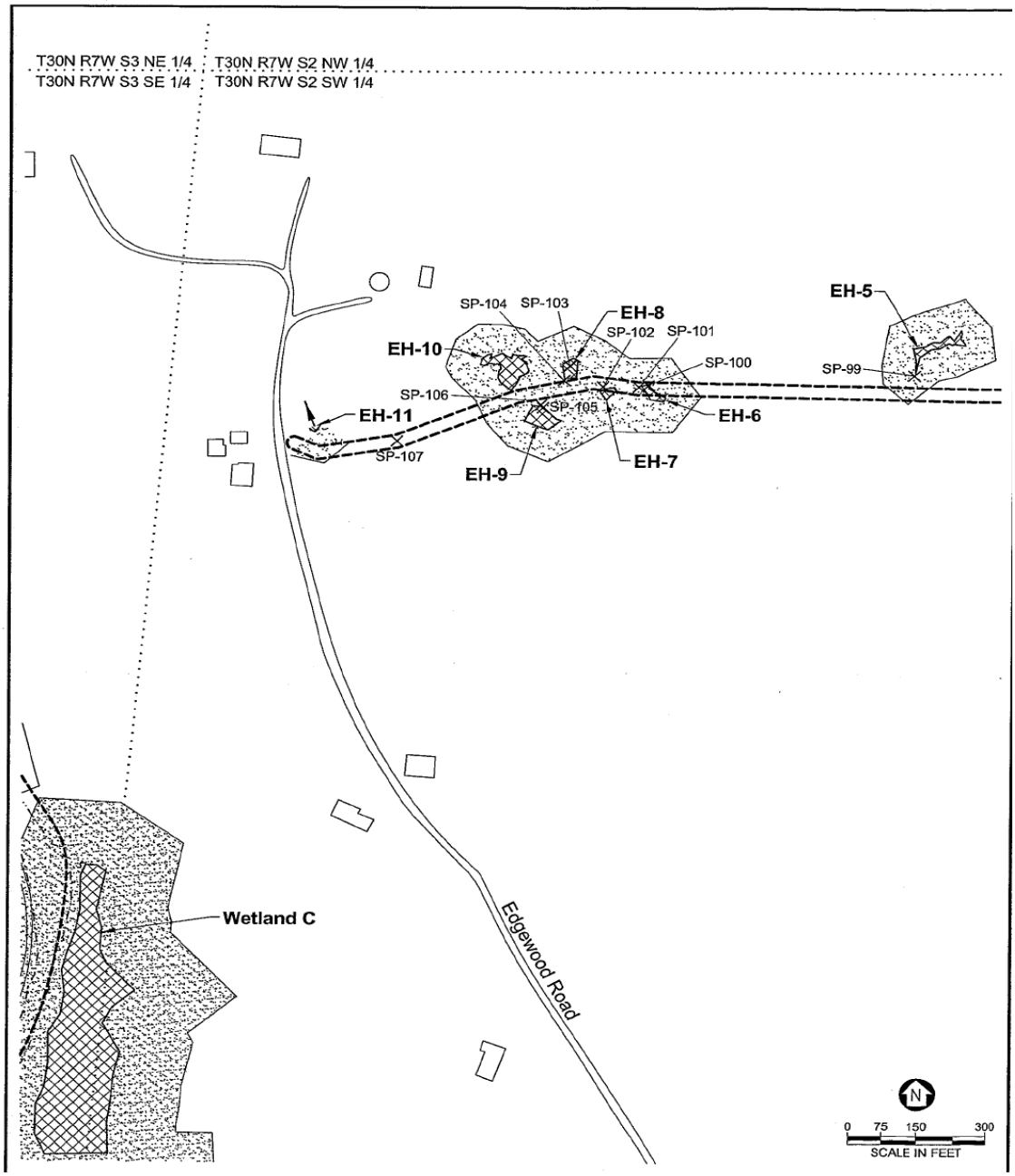
- Roads
- Elwha River
- Lower Elwha Klallam Reservation
- City of Port Angeles



Legend

- Potential Construction Disturbance Footprint
- Lower Elwha Klallam Tribe Reservation Boundary
- Section Line

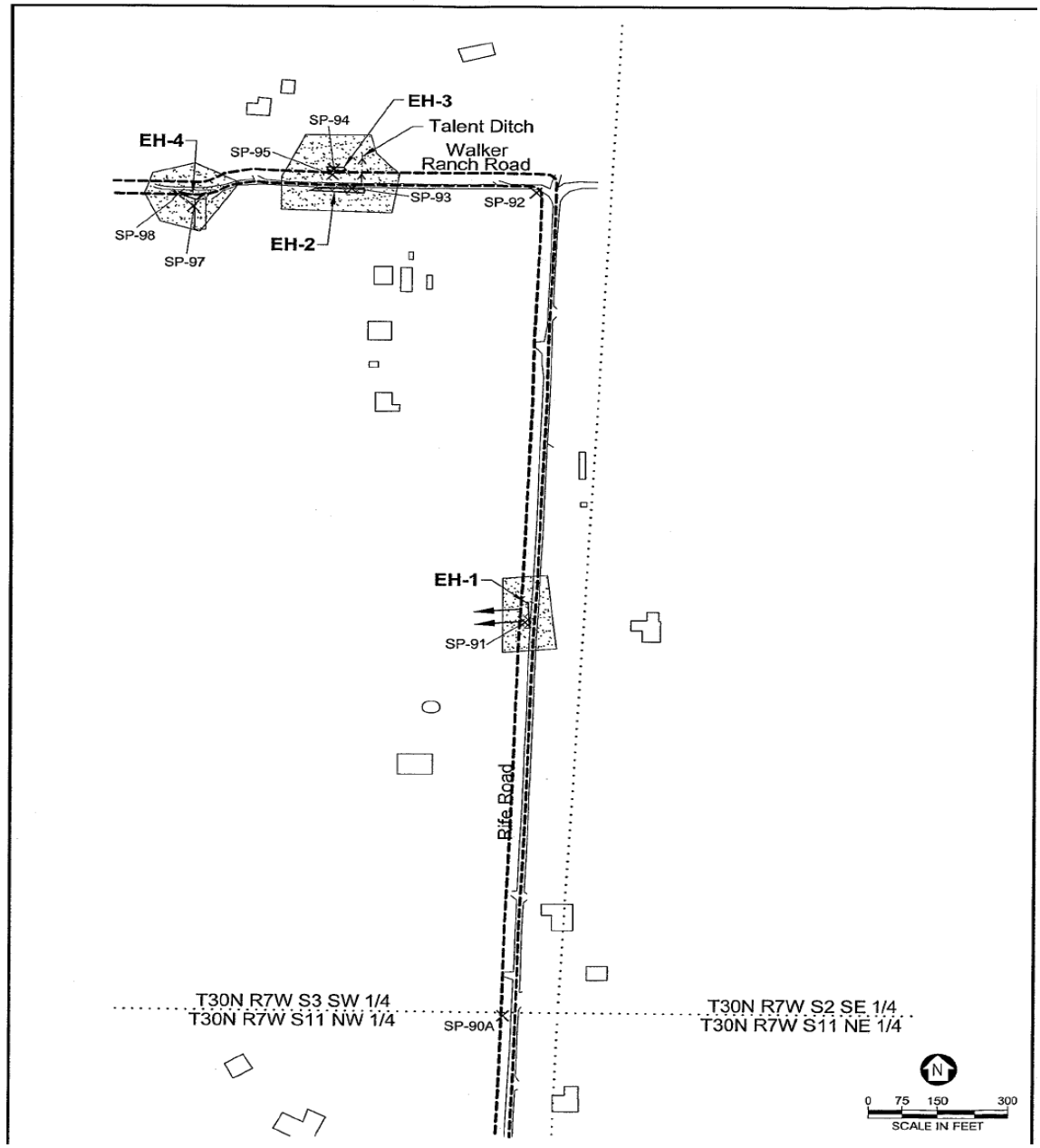
Location map of EHWA pipeline from Figure 3, Jurisdictional Waters Report – URS, 04/10/2006



Legend

- Wetland
- Wetland Buffer
- Sample Plot
- Potential Construction Disturbance Footprint
- Section Line
- Wetland Extends Beyond Surveyed Area

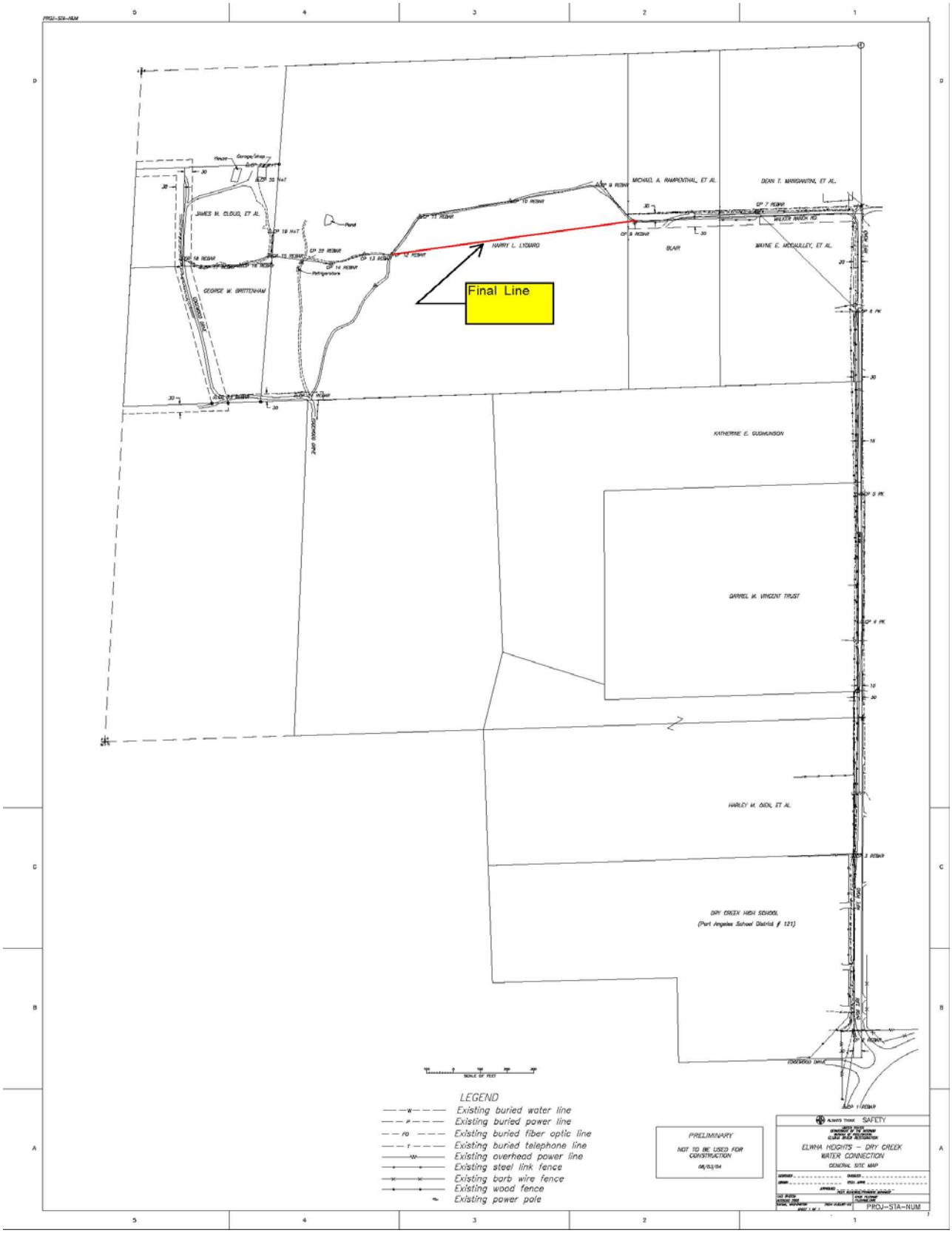
West portion of EHWA pipeline from Figure 11, Jurisdictional Waters Report – URS, 04/10/2006



Legend

- Wetland
- Wetland Buffer
- Sample Plot
- Potential Construction Disturbance Footprint
- Section Line
- Wetland Extends Beyond Surveyed Area

East portion of EHWA pipeline from Figure 12, Jurisdictional Report – URS, 04/10/2006

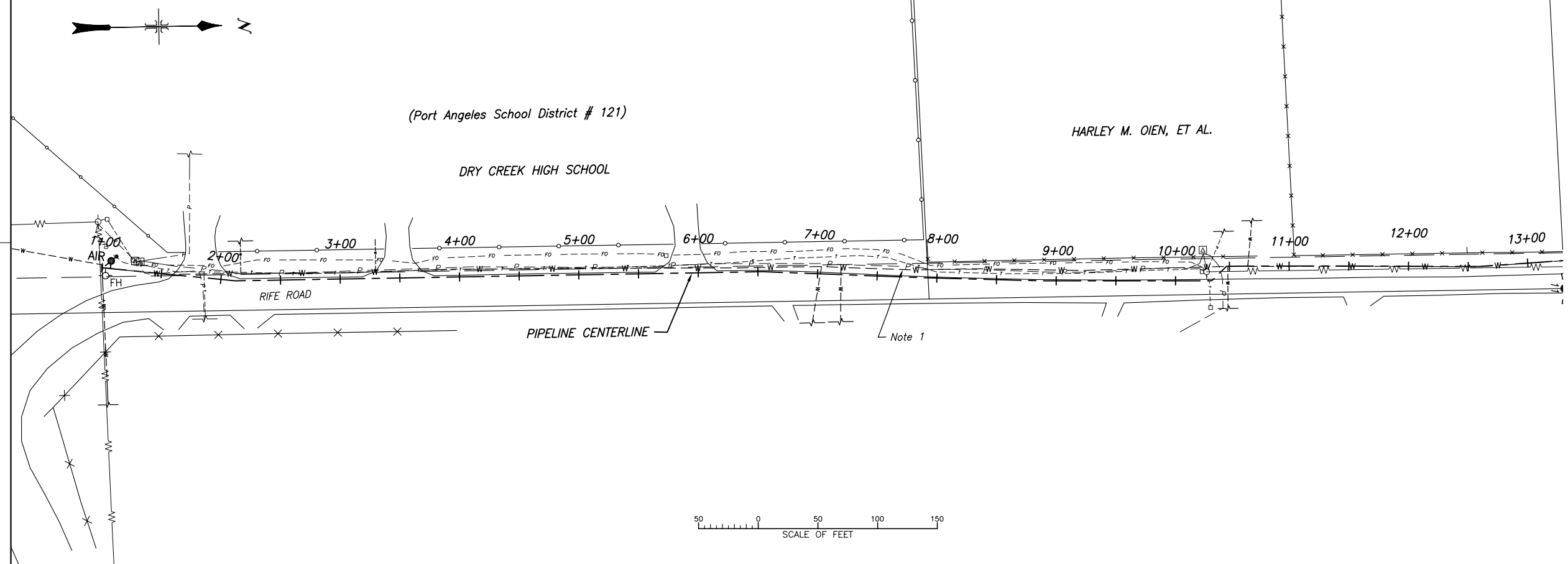


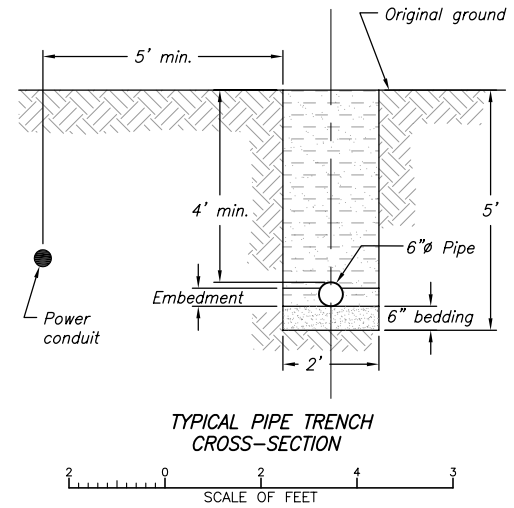
Elwha Heights Water Association Final Pipeline Alinement
Based on Jurisdictional Waters Report – URS, 04/10/2006

PROJ–STA–NUM

SHEET NUMBER

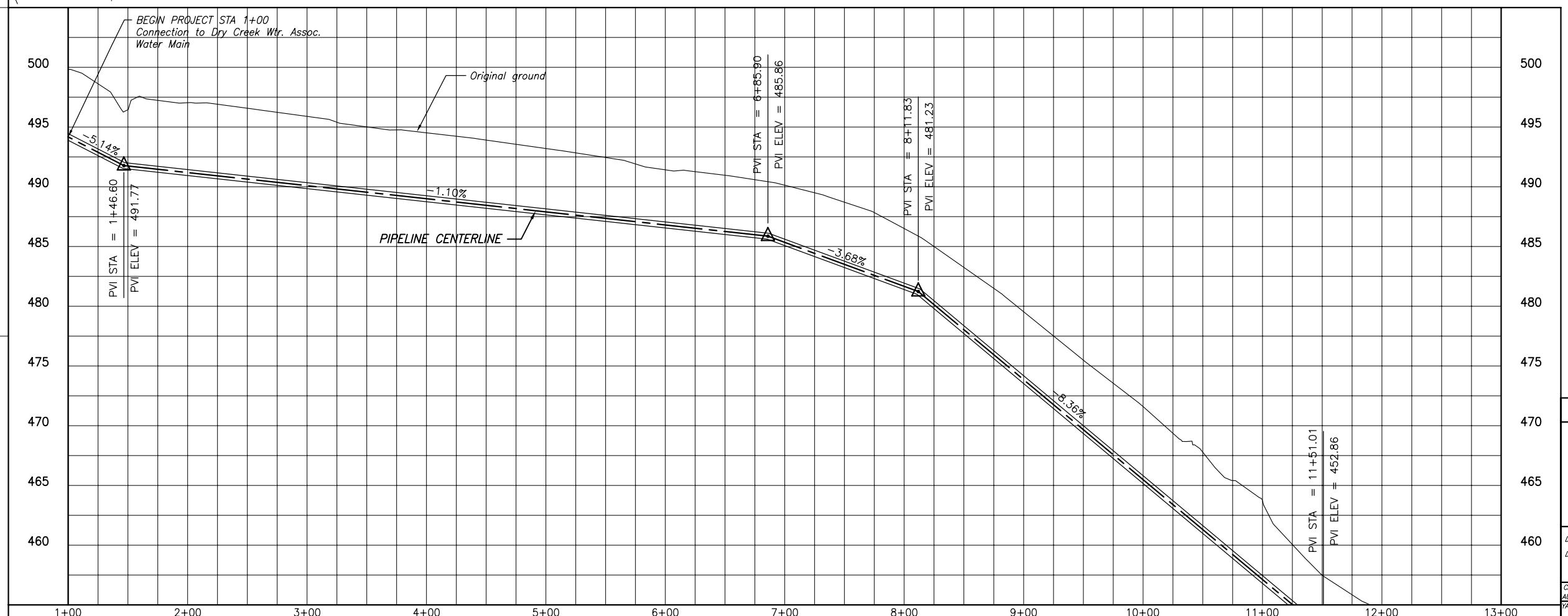
Elwha River Restoration Project
USACE REF # 2006 00334
EHWA - Page 11 of 16





Notes:

Note 1. Cap and abandon existing water main pipeline



LEGEND

- Existing buried water line
- Existing buried power line
- Existing buried fiber optic line
- Existing buried telephone line
- Existing overhead power line
- Existing steel link fence
- Existing barb wire fence
- Existing wood fence
- Existing power pole
- Existing pad mounted transformer
- Existing telephone riser
- Existing fire hydrant
- Existing blow–off valve
- Proposed fire hydrant
- Proposed drain valve with pumpout
- Proposed combination air valve
- Found property or ROW monument

PRELIMINARY

NOT TO BE USED FOR CONSTRUCTION

03/31/2006

ALWAYS THINK SAFETY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
ELWHA RIVER RESTORATION

ELWHA HEIGHTS – DRY CREEK WATER CONNECTION PIPELINE

PLAN AND PROFILE STA 1+00 TO STA 13+00

DESIGNED _____ CHECKED _____

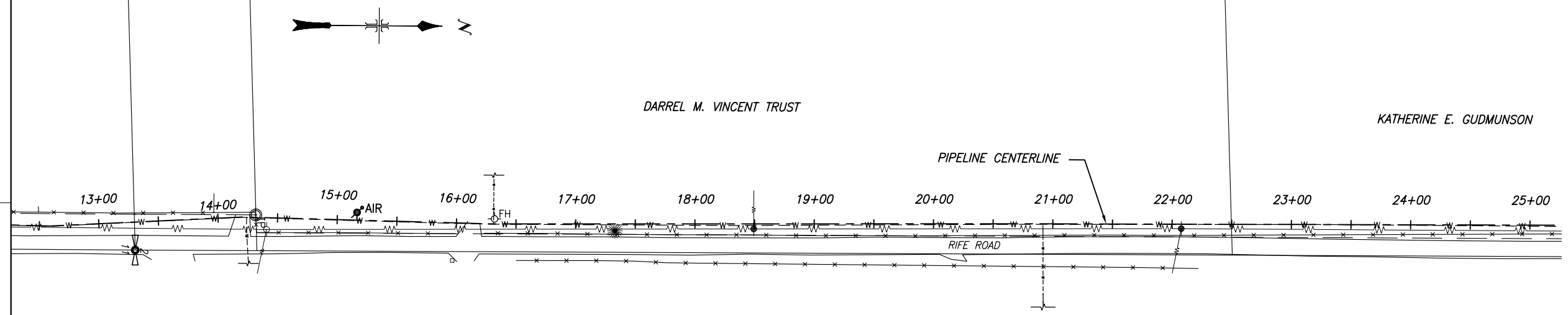
DRAWN _____ TECH. APPR. _____

APPROVED _____
PEER REVIEWER/PROGRAM MANAGER

CAD SYSTEM	CADD FILENAME
AUTOCAD 2004	FILENAME.DWG
YAKIMA, WA 2006–03–31	PROJ–STA–NUM
SHEET 1 OF 6	

SPECIFICATION NUMBER

SHEET NUMBER



50 0 50 100 150
SCALE OF FEET

PRELIMINARY

NOT TO BE USED FOR CONSTRUCTION

03/31/2006

ALWAYS THINK SAFETY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
ELWHA RIVER RESTORATION

ELWHA HEIGHTS – DRY CREEK WATER CONNECTION PIPELINE

PLAN AND PROFILE
STA 13+00 TO STA 24+75

DESIGNED _____ CHECKED _____

DRAWN _____ TECH. APPR. _____

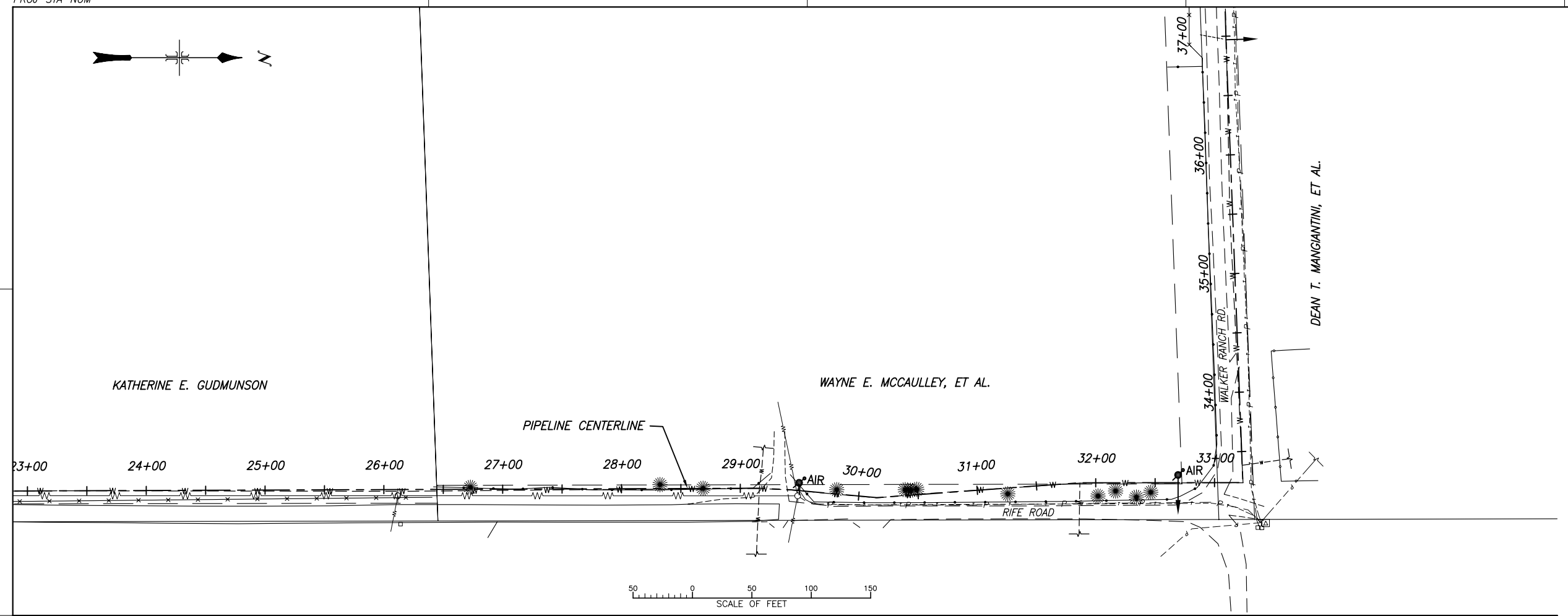
APPROVED _____
PEER REVIEWER/PROGRAM MANAGER

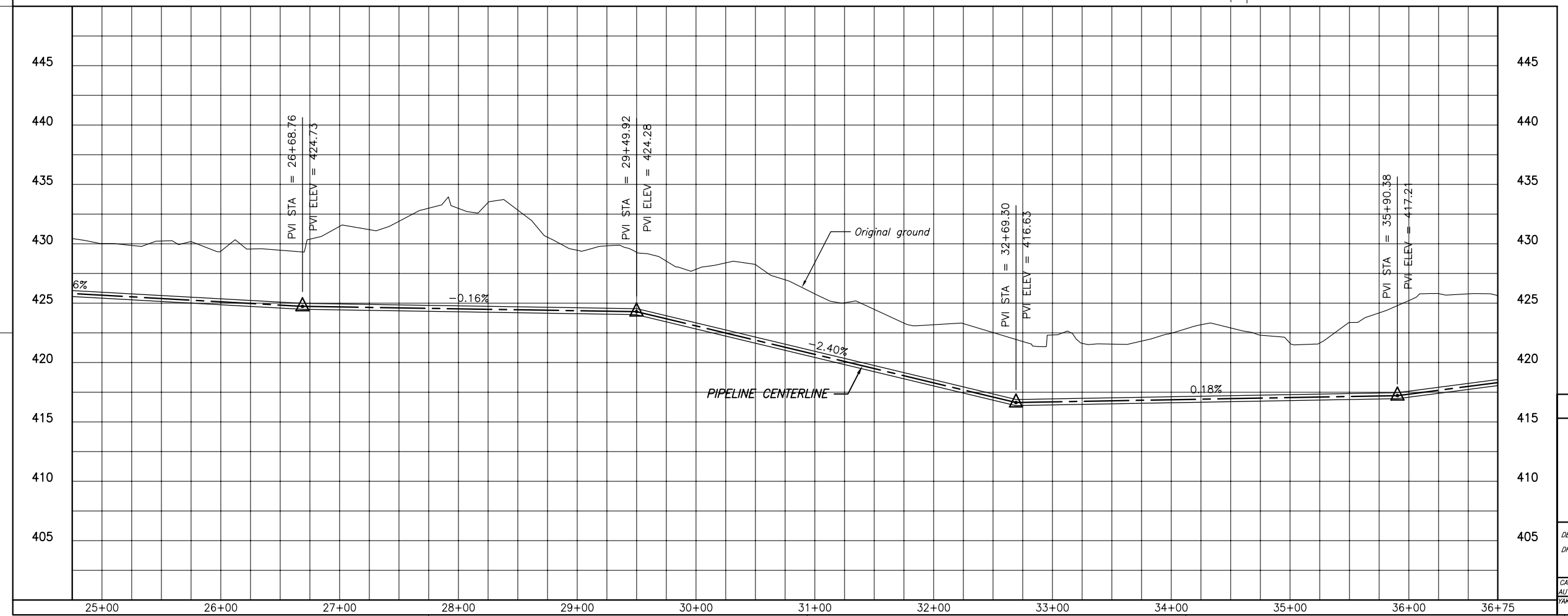
CAD SYSTEM	CADD FILENAME
AUTOCAD 2004	FILENAME.DWG
YAKIMA, WA 2006–03–31	PROJ–STA–NUM

SHEET 2 OF 6

SPECIFICATION NUMBER

SHEET NUMBER





PRELIMINARY

NOT TO BE USED FOR CONSTRUCTION

03/31/2006

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DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
ELWHA RIVER RESTORATION

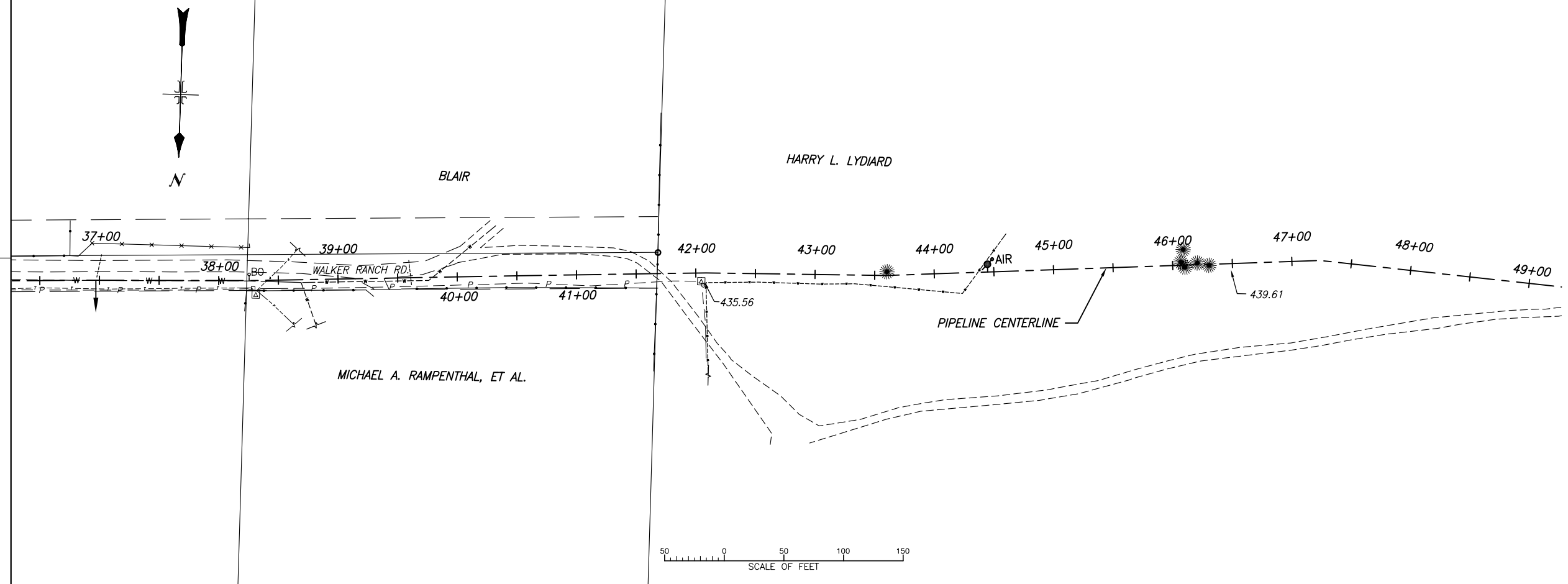
ELWHA HEIGHTS – DRY CREEK WATER CONNECTION PIPELINE

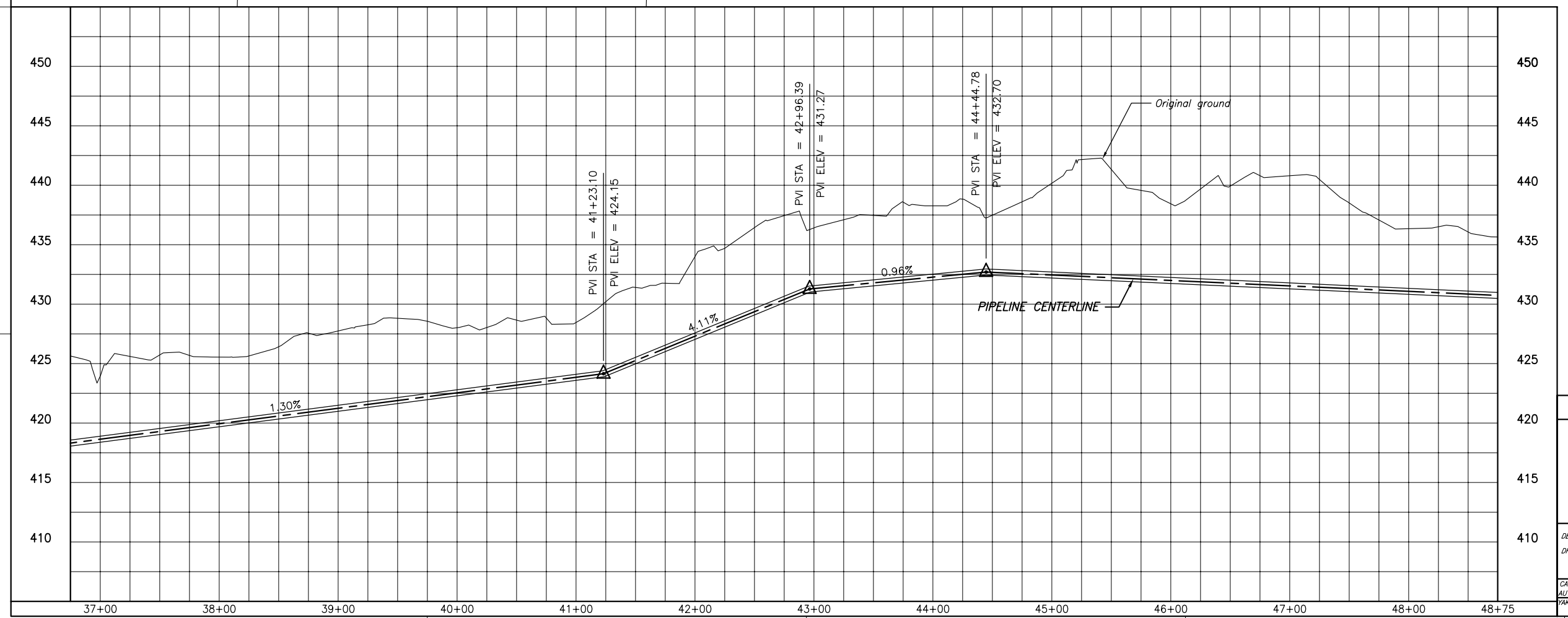
PLAN AND PROFILE
STA 24+75 TO STA 36+75

DESIGNED _____ CHECKED _____
DRAWN _____ TECH. APPR. _____
APPROVED _____ PEER REVIEWER/PROGRAM MANAGER

CAD SYSTEM	CADD FILENAME
AUTOCAD 2002	FILENAME.DWG
YAKIMA, WA 2006–03–31	PROJ–STA–NUM
SHEET 3 OF 6	

SPECIFICATION NUMBER SHEET NUMBER





PRELIMINARY

NOT TO BE USED FOR CONSTRUCTION

03/31/2006

ALWAYS THINK SAFETY

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF RECLAMATION
ELWHA RIVER RESTORATION

ELWHA HEIGHTS – DRY CREEK WATER CONNECTION PIPELINE

PLAN AND PROFILE
STA 36+75 TO STA 48+75

DESIGNED _____ CHECKED _____

DRAWN _____ TECH. APPR. _____

APPROVED _____
PEER REVIEWER/PROGRAM MANAGER

CAD SYSTEM	CADD FILENAME
AUTOCAD 2004	FILENAME.DWG
YAKIMA, WA 2006-03-31	PROJ–STA–NUM
SHEET 4 OF 6	

SPECIFICATION NUMBER

SHEET NUMBER

Elwha River Restoration Project
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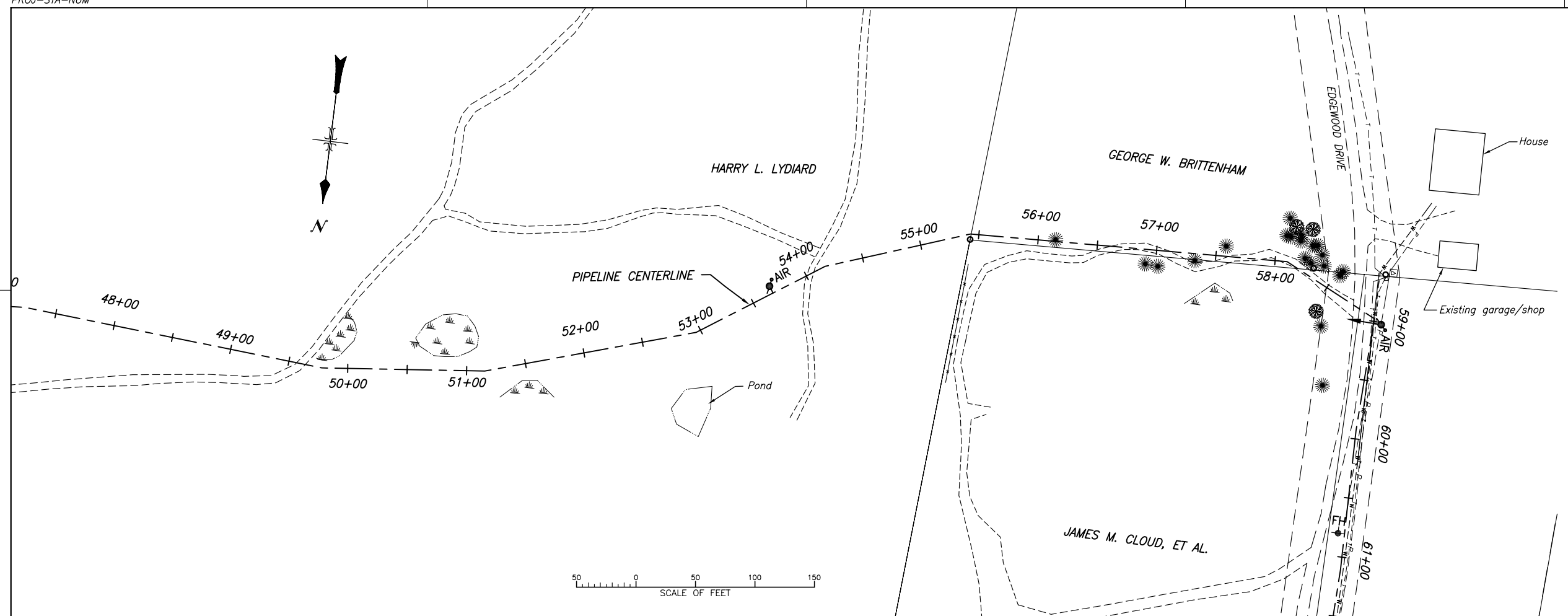

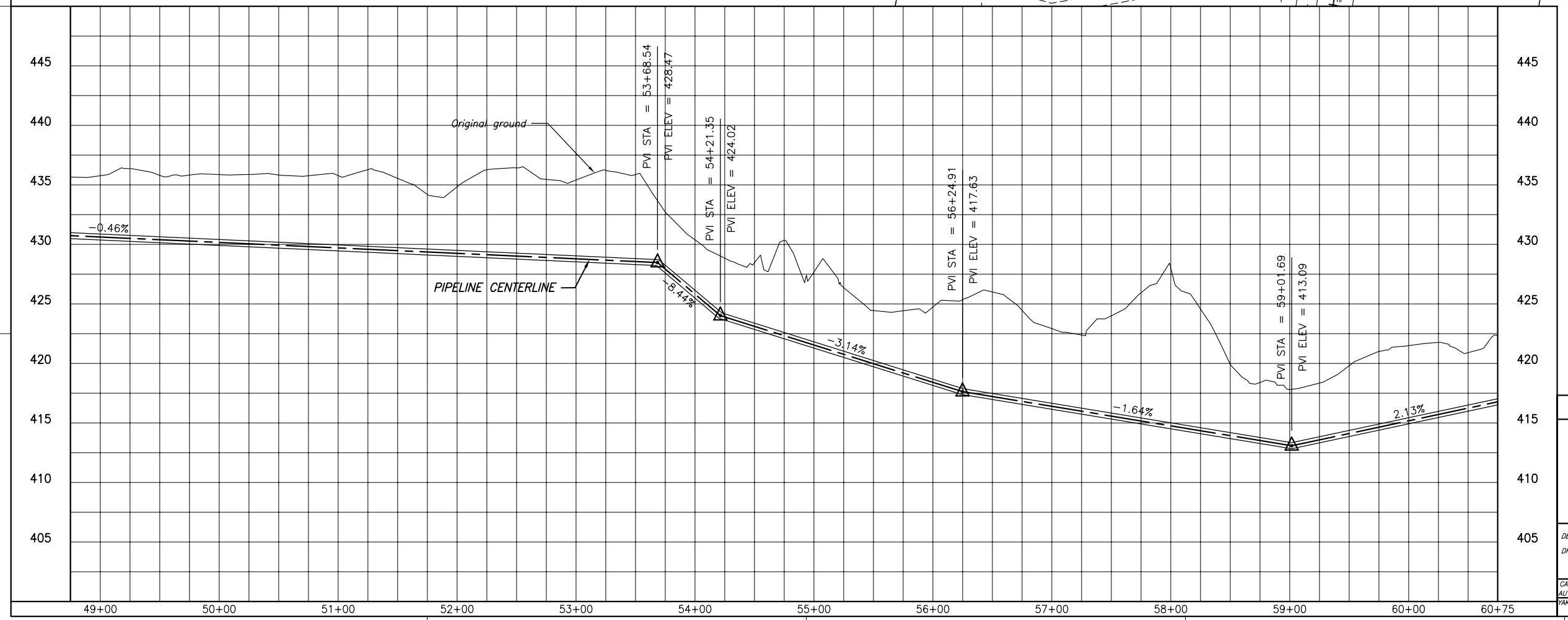

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ELWHA RIVER RESTORATION

ELWHA HEIGHTS – DRY CREEK WATER CONNECTION PIPELINE

PLAN AND PROFILE
STA 48+75 TO STA 59+50

DESIGNED _____ CHECKED _____

DRAWN _____ TECH. APPR. _____

APPROVED _____
PEER REVIEWER/PROGRAM MANAGER

CAD SYSTEM	CADD FILENAME
AUTOCAD 2004	FILENAME.DWG
YAKIMA, WA 2006-03-31	PROJ–STA–NUM
SHEET 5 OF 6	

SPECIFICATION NUMBER

SHEET NUMBER

Elwha River Restoration Project
USACE REF # 2006 00334
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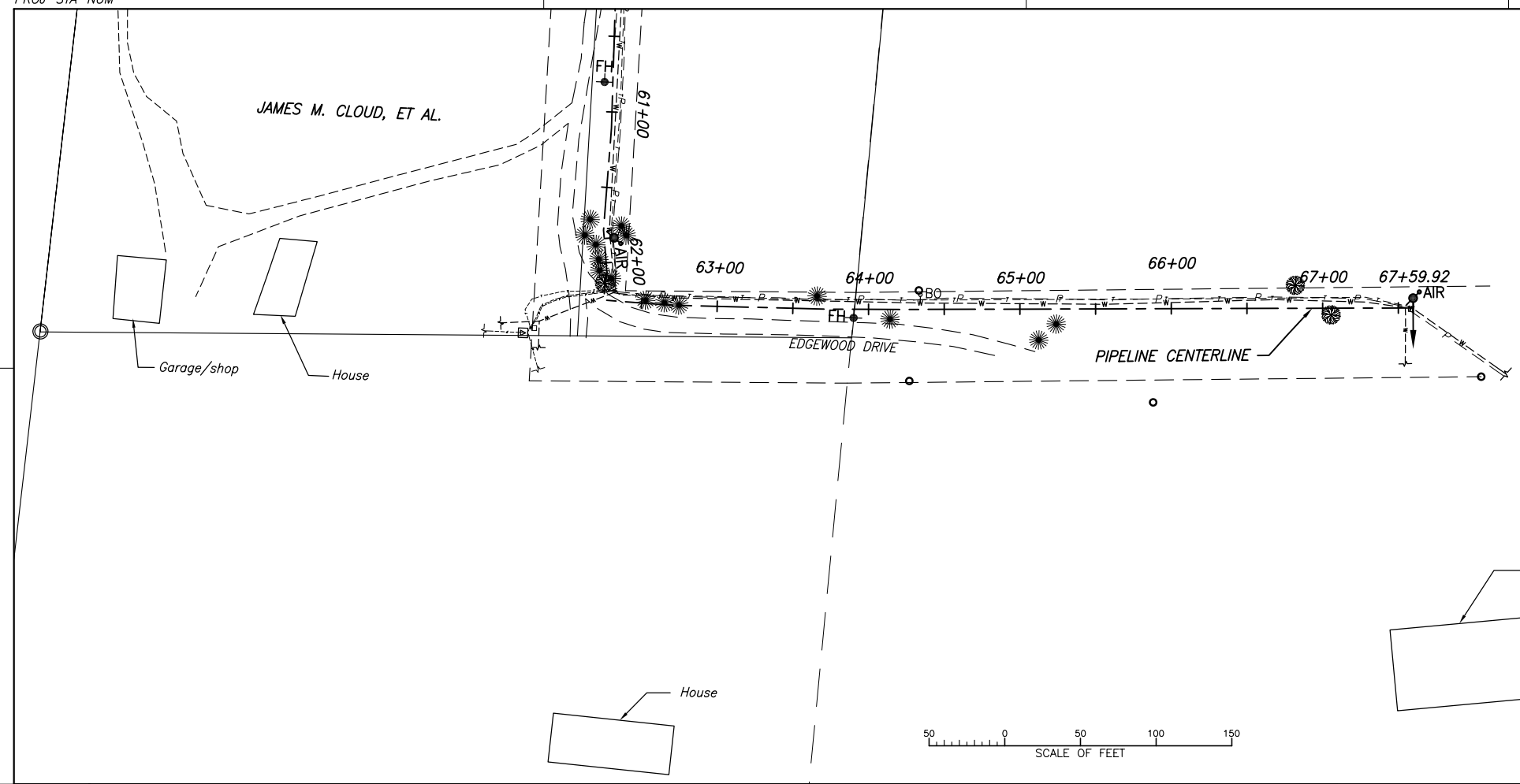

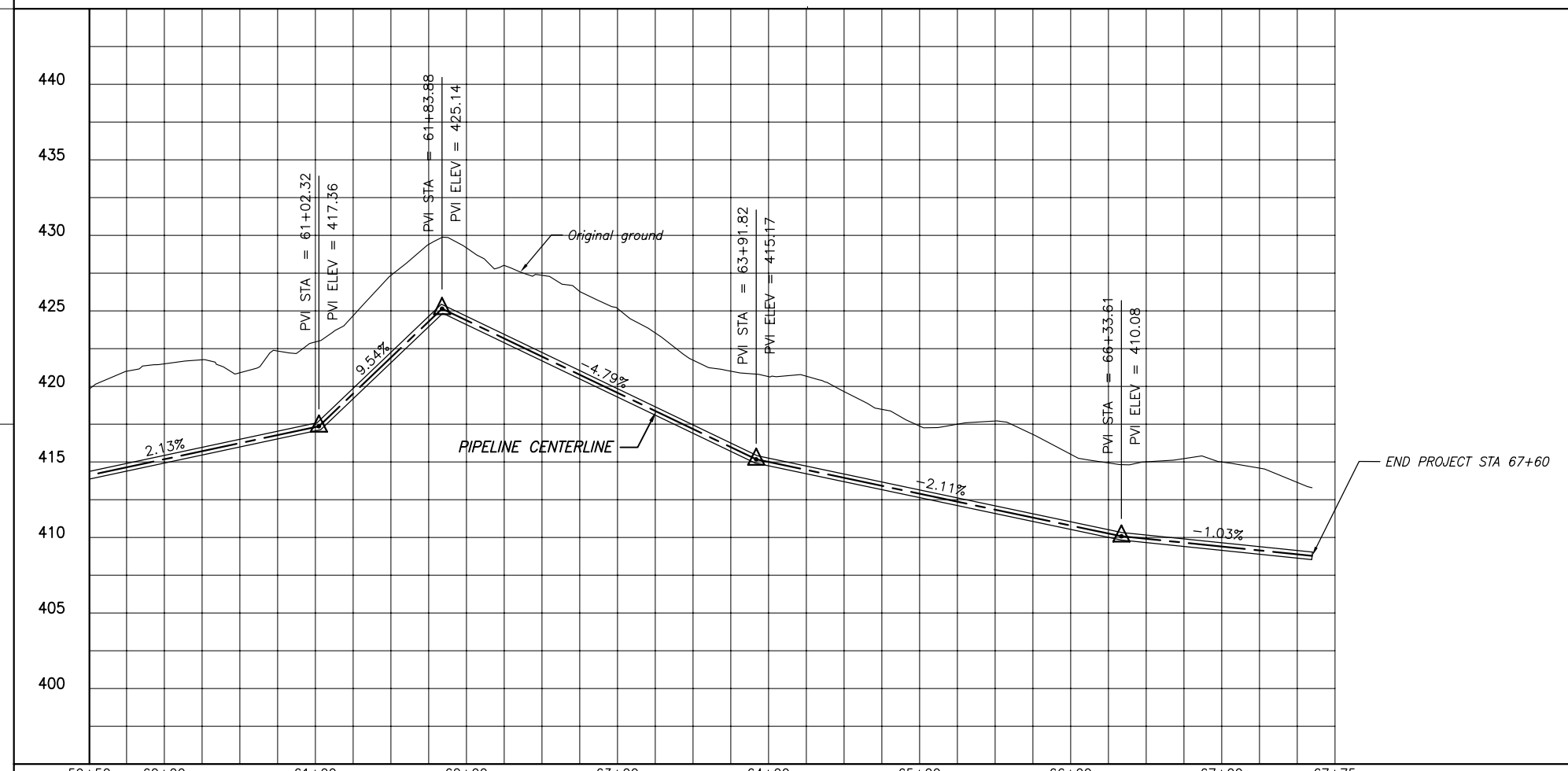

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ELWHA RIVER RESTORATION

ELWHA HEIGHTS – DRY CREEK WATER CONNECTION PIPELINE

PLAN AND PROFILE
STA 59+50 TO 67+60

DESIGNED _____ CHECKED _____
DRAWN _____ TECH. APPR. _____
APPROVED _____
PEER REVIEWER/PROGRAM MANAGER

CAD SYSTEM	CADD FILENAME
AUTOCAD 2004	FILENAME.DWG
YAKIMA, WA 2006-03-31	PROJ–STA–NUM
SHEET 6 OF 6	

SPECIFICATION NUMBER